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### REMARKS

The Applicant thanks the Examiners for the courtesy extended in the 9 November 2004 telephone conference between the Applicant's agents and Examiners Hirshfeld and Ferguson. The Applicant submits that this Amendment addresses the issues raised in that telephone conference and places this application in condition for allowance.

#### Summary of 9 November 2004 Telephone Conference

The Applicant's agents conducted a telephone conference with Examiners Hirshfeld and Ferguson on 9 November 2004.

The telephone conference involved a discussion of claims 1, 7, 16 and the Examiners' rationale for rejection of these claims. The Applicant's agents suggested claim amendments whereby each of these claims would be amended to recite the application of a powder comprising an authentication material to a printed article in a step separate from the application of ink to the article and that the authentication material would have one or more of the properties described in the specification. Examples of such properties of the authentication material include: fluorescent material, magnetic material, DNA containing biological material and radio frequency absorbing material for example. The Examiners expressed an initial indication that claims reciting this combination of features could patentably distinguish the prior art of record.

The Applicant's agents also raised claim 21, which they suggested already incorporated this combination of features. The Examiners indicated initially that this suggestion appeared to be true, but requested more time to reconsider the claim before coming to a definitive conclusion.

#### Introduction

This application claims methods (claims 1-23 and 26-36) for applying authentication materials to printed articles. All of the methods recited in claims 1-23 and 26-36 involve dispensing a powder comprising an authentication material over an article to which ink has been applied. The powder comprising the authentication material is applied over the ink, after the ink has been printed on an article, but preferably before the ink is fully cured. All of the methods in claims 1-23 and 26-36 recite that the authentication material comprises: a

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fluorescent material; a magnetic material; a DNA containing biological material; and/or a radio frequency absorbing material.

None of the cited references disclose or suggest methods incorporating this combination of features. The cited references disclose the well known prior art technique of using anti-offset spray powders to prevent printed articles from sticking to one another while they dry. The cited references also disclose the use of various types authentication materials which are mixed with ink. None of the prior art references teach or suggest applying an authentication material having any of the claimed properties in powder form over recently printed ink.

Formal Objection to Claims 8 and 13

Claim 8 has been amended to depend from claim 7 and to thereby obviate the Examiner's formal objection to claims 8 and 13.

Claims 1-6

The Office Action has raised US Patent Publication No. 2004/0076803 (Jaynes) in connection with the patentability of claim 1. The Applicant has amended claim 1 and respectfully submits that claim 1, as amended, patentably distinguishes Jaynes.

As understood by the Applicant, Jaynes teaches a multi-surfaced foil laminate comprising an improved credit card and identification card having printed indicia visible on both sides through a clear plastic over-laminating film. The foil laminate comprises two printed surfaces printed by conventional lithography offset halftone printing. In paragraph [0034], Jaynes teaches that after printing, a spray powder is applied to the printed surface to provide "a thin surface between the top surface of one powdered sheet and the bottom surface of the powdered sheet stacked thereupon. This surface allows for easy handling of stacked sheets. The spray powder prevents wet inks from sticking or adhering to the bottom surface of a powdered sheet stacked thereupon. The spray powder enables the ink to dry. The air dries the ink, the powder used to separate the sheets and prevent them from sticking."

This passage from Jaynes describes the well known procedure of applying a "spray powder" or "anti-offset powder" to lithographically printed sheets to prevent the wet ink

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printed on a first sheet from sticking to an adjacent sheet. The application of anti-offset powder is described as prior art by the Applicant in the paragraph spanning pages 3 and 4 of the current application.

In contrast, claim 1 recites "after applying ink to the article, dispensing authentication material in powder form over the article before the ink is fully cured" and "the authentication material comprising at least one of: a fluorescent material; a magnetic material; a DNA containing biological material; and a radio frequency absorbing material." Jaynes does not teach or suggest this combination of features from claim 1. Jaynes fails to disclose or suggest authentication materials having any such properties or "dispensing authentication material in powder form over the article before the ink is fully cured" as recited in claim 1.

On the basis of this reasoning, the Applicant respectfully submits that claim 1 patentably distinguishes Jaynes. As claims 2-6 depend from claim 1, the Applicant submits that claims 2-6 are also patentable over Jaynes for at least the reasons discussed above.

The Office Action has raised Jaynes in combination with US Patent Publication No. US 2003/0220419 (Sekioka et al.) in connection with the patentability of claim 4. Sekioka et al. describes a latent image ink composition comprising an organic fluorescent substance. Sekioka et al. teaches that the fluorescent material is mixed with ink and then printed on a document. The Applicant respectfully submits that Sekioka et al. fails to remedy the previously discussed deficiencies of Jaynes. More particularly, Sekioka et al. does not teach or suggest the claim 1 feature of "after applying ink to the article, dispensing the authentication material in powder form over the article". As discussed in the Background section of this application, mixing authentication material with ink has the disadvantage that it tends to require relatively large amounts of expensive authentication material, whereas application of authentication material in powder form over the recently printed article permits the use of smaller amounts of authentication material. The Applicant submits that claim 4 patentably distinguishes the combination of Jaynes and Sekioka et al.

The Office Action has raised Jaynes in combination with US Patent No. 6,600,823 (Hayosh) in connection with the patentability of claim 5. Hayosh describes a technique for authenticating documents using magnetic ink (i.e. ink containing magnetic material). Hayosh teaches that the magnetic material is mixed with ink and then printed on a document. The Applicant respectfully submits that Hayosh fails to remedy the previously discussed deficiencies of Jaynes. More particularly, Hayosh does not teach or suggest the claim 1

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feature of "after applying ink to the article, dispensing the authentication material in powder form over the article". As discussed in the Background section of this application, mixing authentication material with ink has the disadvantage that it tends to require relatively large amounts of expensive authentication material, whereas application of authentication material in powder form over the recently printed article permits the use of smaller amounts of authentication material. The Applicant submits that claim 5 patentably distinguishes the combination of Jaynes and Hayosh.

The Office Action has raised Jaynes in combination with US Patent Publication No. 2002/0129251 (Itakura et al.) in connection with the patentability of claim 6. Itakura et al. describes a technique for authenticating documents using "DNA mixed ink" (i.e. ink containing DNA material). Itakura et al. teaches that the DNA containing material is mixed with ink and then printed on a document. The Applicant respectfully submits that Itakura et al. fails to remedy the previously discussed deficiencies of Jaynes. More particularly, Itakura et al. does not teach or suggest the claim 1 feature of "after applying ink to the article, dispensing the authentication material in powder form over the article". As discussed in the Background section of this application, mixing authentication material with ink has the disadvantage that it tends to require relatively large amounts of expensive authentication material, whereas application of authentication material in powder form over the recently printed article permits the use of smaller amounts of authentication material. The Applicant submits that claim 6 patentably distinguishes the combination of Jaynes and Itakura et al.

#### Claims 7-15

The Office Action has raised Jaynes in connection to the patentability of claim 7. The Applicant has amended claim 7 to recite the combination of "applying ink to the printed article; before the ink applied to the printed article is cured, applying a powder comprising an authentication material atop the ink;" and "the authentication material comprising at least one of: a fluorescent material; a magnetic material; a DNA containing biological material; and a radio frequency absorbing material." As discussed above, Jaynes describes the well known process of applying an anti-offset powder to a printed article, but fails to teach or suggest that the powder comprises an authentication material having the properties recited in claim 7. Accordingly, the Applicant submits that claim 7 patentably distinguishes Jaynes. As claims

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8-15 depend from claim 7, the Applicant submits that claims 8-15 are also patentable over Jaynes for at least this reason.

The Office Action has raised Jaynes in combination with the website [www.varn.com/powders](http://www.varn.com/powders) in relation to the patentability of claim 12. The website [www.varn.com/powders](http://www.varn.com/powders) describes the anti-offset powders sold by the Varn International organization. As plainly stated on the website, the primary function of these anti-offset powders is to "form a separation between the sheets of stock as they leave the press. This separation traps air between the sheets to speed ink drying. It also breaks the suction effects of wet ink and static and prevents the ink from setting off onto the sheet above." The Applicant respectfully submits that [www.varn.com/powders](http://www.varn.com/powders) fails to remedy the previously discussed deficiencies of Jaynes. More particularly, neither Jaynes nor [www.varn.com/powders](http://www.varn.com/powders) teach or suggest the claim 7 feature of "applying a powder comprising an authentication material atop the ink," where the authentication material has the properties recited in claim 7. Claim 12 depends from claim 7 and therefore incorporates these features. Accordingly, the Applicant submits that claim 12 patentably distinguishes Jaynes in combination with [www.varn.com/powders](http://www.varn.com/powders).

As discussed above, the other references raised by the Examiner (Sekioka et al., Hayosh and Itakura et al.) involve mixing various authentication materials with ink. The Applicant submits that none of these references teach or suggest the claim 7 feature of "before the ink applied to the printed article is cured, applying a powder comprising an authentication material atop the ink," where the authentication material has any of the properties recited in claim 7. As claims 8-15 depend from claim 7, the Applicant submits that claims 8-15 patentably distinguish Jaynes in combination with any of these other references.

#### Claims 16-23

The Office Action has raised Jaynes in connection with the patentability of claim 16. The Applicant has amended claim 16 to recite the combination of "mixing an authentication material with a spray powder for preventing printed articles from adhering to other objects to form a powder mixture"; "prior to the ink curing on the printed article, applying the powder mixture to the printed article atop the ink"; and "the authentication material comprises at least one of: a fluorescent material; a magnetic material; a DNA containing biological material; and a radio frequency absorbing material." As discussed above, Jaynes describes applying a

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spray powder to a newly printed article to prevent the printed article from sticking to adjacent printed articles. However, Jaynes fails to teach or discuss mixing an authentication material with the spray powder to form a powder mixture as recited in claim 16. In addition, Jaynes does not describe applying a powder mixture containing both a spray powder and an authentication material to the newly printed article, where the authentication material has any of the properties recited in claim 16. Accordingly, the Applicant submits that claim 16 patentably distinguishes Jaynes. As claims 17-23 depend from claim 16, the Applicant submits that claims 17-23 are also patentable over Jaynes for at least this reason.

The Office Action has also raised [www.varn.com/powders](http://www.varn.com/powders) in connection with the patentability of claim 20. As discussed above, the powders described on this website are anti-offset powders used to keep printed sheets from adhering to one another. The powders described on this website do not comprise an authentication material having any of the properties recited in claim 16. Accordingly, [www.varn.com/powders](http://www.varn.com/powders) fails to remedy the aforementioned deficiencies with Jaynes. More particularly, neither Jaynes nor [www.varn.com/powders](http://www.varn.com/powders) teach or suggest the claim 16 features of "mixing an authentication material with a spray powder for preventing printed articles from adhering to other objects to form a powder mixture"; "prior to the ink curing on the printed article, applying the powder mixture to the printed article atop the ink"; and "the authentication material comprises at least one of: a fluorescent material; a magnetic material; a DNA containing biological material; and a radio frequency absorbing material." Claim 20 depends from claim 16 and therefore incorporates this combination of features. Accordingly, the Applicant submits that claim 20 patentably distinguishes the combination of Jaynes and [www.varn.com/powders](http://www.varn.com/powders).

As discussed above, the other references raised by the Examiner (Sekioka et al., Hayosh and Itakura et al) involve mixing various authentication materials with ink. The Applicant submits that none of these references teach or suggest the claim 16 features of "mixing an authentication material with a spray powder for preventing printed articles from adhering to other objects to form a powder mixture" and "prior to the ink curing on the printed article, applying the powder mixture to the printed article atop the ink," where the authentication material has any of the properties recited in claim 16. As claims 17-23 depend from claim 16, the Applicant submits that claims 17-23 patentably distinguish Jaynes in combination with any of these other references.

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Claims 24-25

The Office Action has raised Jaynes together with www.varn.com/powders in relation to the patentability of claim 24. The Applicant has amended claim 24 to recite the combination of "[a] powder mixture for authentication of printed articles, the powder mixture comprising a mixture of an authentication material and a spray powder for preventing printed articles from adhering to other objects ..." and "wherein the powder mixture is applied over ink that has been printed on the printed articles prior to the ink being cured and wherein the authentication material comprises at least one of: a fluorescent material; a magnetic material; a DNA containing biological material; and a radio frequency absorbing material." As discussed above, both Jaynes and www.varn.com/powders describe only anti-offset spray powders and the application thereof to a newly printed article to prevent the printed article from sticking to adjacent printed articles. Neither Jaynes nor www.varn.com/powders teach or discuss a powder mixture comprising the spray powder and an authentication material having the properties recited in claim 24. For these reasons, the Applicant respectfully submits that claim 24 patentably distinguishes the combination of Jaynes with www.varn.com/powders. As claim 25 depends from claim 24, the Applicant submits that claim 25 is also patentable over Jaynes in combination with www.varn.com/powders.

New claims 26-40

The Applicant has added new claims 26-40 which recite specific properties of the authentication material. New claims 26-28 depend from independent claim 1; new claims 29-32 depend from independent claim 7; new claims 33-36 depend from independent claim 16; and new claims 37-40 depend from independent claim 24.

New claims 26-40 are submitted to be allowable on the basis of the arguments discussed above in relation to the independent claims at least from which they respectively depend.

Request for Withdrawal of Final Rejection

The Applicant respectfully requests that the Examiner withdraw the finality of this Office Action. The Applicant submits that a number of the claims which were rejected in this Office Action contained patentable subject matter which should have been indicated as being allowable prior to this Amendment. For example, claims 4-6, 13 and 21 are submitted to

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of the prior art references cited during the prosecution of this application teach or suggest the combination of, after printing ink on an article, dispensing an authentication material in powder form over the article, wherein the authentication material comprises: a fluorescent material; a magnetic material; a DNA containing biological material; and/or a radio frequency absorbing material. The Applicant submits that these previously rejected claims should have been indicated as being allowable and that new reasoning has been presented for allowance of these previously rejected claims. On this basis, the Applicant respectfully requests that the Examiner withdraw her holding of finality pursuant to MPEP §706.07(e).

The Applicant submits that at least claims 4-6 contained patentable subject matter prior to the 3 March 2004 Office Action. Accordingly, it was not the Amendment filed 1 June 2004 that necessitated the new ground(s) of rejection raised in this Office Action. For this reason, the Applicant respectfully submits that the finality of this Office Action is premature and respectfully requests that the Examiner withdraw her holding of finality pursuant to MPEP §706.07(c)-(d).

In the alternative, if the Examiner is not persuaded to withdraw the finality of this Office Action, the Applicant submits that the amendments to claims 1, 7, 8, 16 and 24 and new claims 26-40 should be entered despite the finality of the Office Action, because these amendments comply with 37 C.F.R. § 1.116; MPEP § 714.12; and MPEP § 714.13. More particularly, the Applicant submits that the amendment to claim 8 was merely a formal amendment and that the amendments to independent claims 1, 7, 16 and 24 put these claims into condition for allowance. In addition, the amendments to independent claims 1, 7, 16 and 24 and new claims 26-40 incorporate features similar to those of a number of dependent claims (see claims 4-6, 13 and 21). The Applicant submits that the amendments to independent claims 1, 7, 16 and 24 and new claims 26-40 were not made previously, because the subject matter which forms the basis of these amendments and new claims was erroneously rejected in previous Office Actions. On the basis of this reasoning, the Applicant respectfully requests that the amendments to claims 1, 7, 8, 16 and 24 and new claims 26-40 be entered pursuant to MPEP § 714.12.



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Conclusions

In view of the amendments and arguments presented above, the Applicant submits that this application is now in condition for allowance and respectfully requests reconsideration and allowance of this application in light of the foregoing amendments and comments.

Respectfully submitted,  
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